

## REMARKS

Applicant appreciates the thoroughness with which the Examiner has examined the above-identified application. Reconsideration is requested in view of the amendments above and the remarks below.

### **Election of species**

Applicants understand that claims 5, 11, 22 and 23 have been withdrawn as being to a non-elected species, and have so marked these claims above. However, in the event that claims 1 or 21 are allowed, those withdrawn claims that are dependent on claims 1 or 21 will be allowable as well.

### **New claims**

Applicants have added new claims 27-30, which read on the elected species of Figs. 2-6. Claims 27 and 29 are dependent on claims 1 and 17, respectively, and specify that the first heat exchanger is a radiator and the second heat exchanger is a charge air cooler, as well as the orientations of each portion thereof. Support is found in originally filed claim 16, in the specification at paragraphs 0024, 0056-0061 and 0065 and in the drawings at Figs. 2-6. Claims 28 and 30 are dependent on claims 27 and 29, respectively, and specify the planar orientation of each radiator and charge air cooler portion. Support is found in originally filed claims 2 and 26, in the specification at paragraphs 0014 and 0056-0061 and in the drawings at Figs. 2-6. No new matter has been added.

### **Rejection under 35 USC § 112, second paragraph**

Claims 1-4, 6-10, 12-21 and 24-26 stand rejected under 35 USC § 112, second paragraph, as being indefinite. Applicant has amended claims 1, 16, 17, 21 and 26 to

clarify the use of the terms "faces," "sides" and "therebetween" as requested by the Examiner. Applicant has also cancelled reference to the manifolds of the radiator portions in claim 16. The rejection under § 112, second paragraph is now believed obviated.

#### **Rejection under 35 USC § 102**

Claims 1-4, 6-10, 12-21 and 24-26 stand rejected under 35 USC § 102 as being anticipated by Hedeen U.S. Patent No. 5,316,079. Applicant respectfully traverses this rejection.

The instant invention is directed to a heat exchanger apparatus (independent claims 1, 16 and 21) and a method for cooling engine fluids (independent claims 17 and 26) in which a first heat exchanger (a radiator in claim 16) and a second heat exchanger (a charge air cooler in claim 16) each have two separate portions. One of the first heat exchanger portions is disposed in overlapping relation with one of the second heat exchanger portions, and the other of the first heat exchanger portions is disposed in overlapping relation with the other of the second heat exchanger portions, so that ambient cooling air may flow in series through the overlapped first and second heat exchanger portions. Each of the second heat exchanger portions has a pair of manifolds. Each of the first and second heat exchanger portions are operatively connected to permit flow of the fluid to be cooled by each and, in particular, the manifold of one of the second heat exchanger portions is connected to a manifold of the other of the second heat exchanger portion.

In independent claims 1, 16 and 17, each of the first and second heat exchanger "portions" has opposite front and rear faces through which ambient cooling air flows,

opposite first and second ends adjacent the faces, and sides adjacent the faces between the first and second ends.

In independent claims 21 and 26, the heat exchanger "portions" are described as being in first and second parallel planes, with one of the first heat exchanger portions being adjacent one of the second heat exchanger portions in the second plane, and the other of the first heat exchanger portions being adjacent the other of the second heat exchanger portions in the first plane. Each of the first and second heat exchanger portions has a pair of manifolds.

Unlike applicant's claimed invention, the Hedeen patent discloses a single radiator portion overlapped with a single charge air cooler portion with respect to direction of ambient cooling air flow. The Hedeen radiator does not have two "portions," and the Hedeen charge air cooler likewise does not have two "portions," as recited in applicant's claims. For example, Hedeen's radiator and charge air cooler do not have two portions, each with their own front and rear faces, opposite first and second ends adjacent the faces, and sides adjacent the faces between the first and second ends, as in claims 1, 16 and 17. Hedeen also does not disclose a one radiator portion and one charge air cooler portion in a first plane, and another radiator portion and another charge air cooler portion in a second, parallel plane, as required by applicant's independent claims 21 and 26. Accordingly, Hedeen does not anticipate the claims of the instant application. Likewise, the instant application would not be obvious from Hedeen since Hedeen is addresses to structural integrity of package and to reposition the charge air cooler manifolds, while the present invention is directed to the optimization of heat transfer performance of the heat exchanger package.

It is respectfully submitted that the application has now been brought into a condition where allowance of the entire case is proper. Reconsideration and issuance of a notice of allowance are respectfully solicited.

Respectfully submitted,



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